

simultaneously removing the first layer of photoresist[;] and remaining portions of the layer of TiN; and

[removing remaining portions of the layer of TiN; and]

forming a blanket layer of interlayer dielectric on the surface of the semiconductor device.

5. (Once amended) The method of Claim 1 wherein the first layer of photoresist and the layer of TiN [is etched] are removed by a process utilizing fluorine containing gas chemistry at an elevated temperature.

Clean set of Claims

1. A method of manufacturing a semiconductor device, wherein the method comprises:
forming a final layer of metal on a layer of interlayer dielectric in the semiconductor device;
forming a layer of TiN on the final layer of metal;
forming a first layer of photoresist on the layer of TiN;
patterning and developing the first layer of photoresist exposing portions of the layer of TiN;
etching holes in the layer of TiN and the final layer of metal exposing portions of the interlayer dielectric, wherein metal structures are formed;
simultaneously removing the first layer of photoresist and remaining portions of the layer of TiN; and

forming a blanket layer of interlayer dielectric on the surface of the semiconductor device.

3. The method of Claim 1 further comprising:
forming a second layer of photoresist on the blanket layer of interlayer dielectric;
patterning and developing the second layer of photoresist exposing portions of the blanket layer of interlayer dielectric overlying metal structures; and
etching the exposed portions of the blanket layer of interlayer dielectric overlying metal structures; and
etching the exposed portions of the blanket layer of interlayer dielectric down to the metal structures.

4. The method of Claim 3 further comprising removing the second layer of photoresist.